# UNITED STATES DISTRICT COURT DISTRICT OF NEVADA

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UNITED STATES OF AMERICA,

Plaintiff,

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400 ACRES OF LAND, more or less, situate in Lincoln County, State of Nevada; and JESSIE J. COX, et al.,

Defendants.

Case No. 2:15-cv-01743-MMD-NJK

#### ORDER

(Pl.'s Motions to Exclude – ECF Nos. 130, 133, 134, 135)

### I. INTRODUCTION

In this eminent domain action, the Court has found that the United States' taking of property ("the Property") for the purpose of operating the Nevada Test and Training Range ("NTTR"), a military test and training facility at Nellis Air Force Base, is for a congressionally authorized public use. (ECF No. 111 at 1.) Accordingly, the only issue that remains is just compensation. In response to the United States' request over Defendants Sheahan Landowners' ("Defendants" or "Landowners") objection, the Court stayed discovery pending resolution of threshold evidentiary motions. (ECF No. 125 at 3.)

The United States filed six motions to exclude evidence. (ECF Nos. 128, 129, 130, 133, 134, 135.) Defendants filed a motion asking the Court to "preserve the special purpose finding for the jury and allow the jury to consider any valuation methodology that is just and equitable." (ECF No. 132 at 1.) The Court reviewed the parties' responses (ECF

Nos. 142, 145, 146, 147, 148, 149) and replies (ECF Nos. 170, 171, 172, 173, 174, 175).<sup>1</sup> In addition, the court heard argument on three of the United States' motions (ECF Nos. 130, 134, and 135) on September 22, 2017. (ECF No. 237.) The Court then ruled on two of the United States' motions (ECF Nos. 128, 129) as well as Defendants' motion to preserve issues for the jury (ECF No. 241).

This order resolves the United States' remaining motions to exclude evidence (ECF Nos. 130, 133, 134, 135).<sup>2</sup>

#### II. RELEVANT BACKGROUND

The Court incorporates the relevant background facts set forth in the Court's previous order. (ECF No. 241 at 2-3.)

### III. LEGAL STANDARD GOVERNING ADMISSIBILITY OF EXPERT TESTIMONY

"A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case." Fed. R. Evid. 702.

The Supreme Court provided additional guidance on Rule 702 and its application in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), and *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999). In *Daubert*, the Court held that scientific testimony must be reliable and relevant to be admissible. *Daubert*, 509 U.S. at 589. *Kumho Tire* clarified that *Daubert's* principles also apply to technical and specialized knowledge. *See Kumho*, 526 U.S. at 141. The trial court has "considerable leeway" in deciding how to

<sup>&</sup>lt;sup>1</sup>Defendants Christine Wheatley Tanis and Mark Tanis joined Landowners' responses to the United States' motions. (ECF Nos. 162, 163, 164, 165, 166, 167.)

<sup>&</sup>lt;sup>2</sup>Landowners asserted countermotions in response to several of the United States' motions to exclude Landowners' expert opinions. (ECF Nos. 146, 147, 148, 149.) As the Court explained during the September 22 hearing, these filings fail to comply with LR IC 2-2(b) and will not be considered as separate countermotions. The Court will nevertheless consider the points raised in these countermotions in addressing the United States' motions.

determine the reliability of an expert's testimony and whether the testimony is in fact reliable. *Id.* at 152. The "test of reliability is 'flexible,' and *Daubert's* list of specific factors neither necessarily nor exclusively applies to all experts or in every case." *Id.* at 141.

The Ninth Circuit has emphasized that "Rule 702 is applied consistent with the liberal thrust of the Federal Rules and their general approach of relaxing the traditional barriers to opinion testimony." *Jinro Am. Inc. v. Secure Investments, Inc.*, 266 F.3d 993, 1004 (9th Cir.), *opinion amended on denial of reh'g*, 272 F.3d 1289 (9th Cir. 2001) (citations and internal quotation marks omitted). "An expert witness—unlike other witnesses—is permitted wide latitude to offer opinions, including those that are not based on firsthand knowledge or observation, so long as the expert's opinion has a reliable basis in the knowledge and experience of his discipline." *Id.* (citations and internal quotation marks omitted). Shaky but admissible evidence should not be excluded but instead attacked by cross-examination, contrary evidence, and attention to the burden of proof. *Primiano v. Cook*, 598 F.3d 558, 564 (9th Cir.), *as amended* (Apr. 27, 2010).

### IV. UNITED STATES' MOTION TO EXCLUDE SAMPLE SURVEY DATA AND RELATED PORTIONS OF DEFENDANTS' EXPERT OPINIONS (ECF NO. 133)

The United States argues that data from certain sample surveys are inadmissible (as are the portions of the five expert opinions that relied upon that data). (ECF No. 133 at 1-2.) The surveys at issue consist of two that were administered by a data collection company called Qualtrics and two that were administered by the staff of a retail tourist destination near the Property on the way to Area 51 called the Alien Research Center ("ARC"). (ECF No. 147 at 3-6.) Five of the expert reports Landowners seek to introduce relied on results from at least some of the surveys to predict how much revenue the Property would generate if it were transformed into a tourism destination. (ECF No. 133 at 3.) Two of the reports relied only on the Qualtrics surveys: the report submitted by Cameron Steinagel of the Innovation Group ("Steinagel report") (ECF No. 133-2 at 4) and the report submitted by Richard Roddewig and Charles Brigden of Clarion Associates, Inc. ("Clarion report") (ECF No. 133-5 at 27, 105-09). Three of the reports relied on both the

Qualtrics and ARC surveys: the report submitted by Tio DiFederico of the DiFederico Group ("DiFederico report") and two of the three reports submitted by Terrence Clauretie ("Clauretie I" and "Clauretie II"). (ECF No. 133-16 at 108-09 (DiFederico); ECF No. 133-17 at 3 (Clauretie I); ECF No. 133-18 at 3 (Clauretie II).)

### A. THE SURVEYS

### 1. Qualtrics I

The first Qualtrics survey ("Qualtrics I") attempted to gauge "demand and pricing to visit the Landowners' Property." (ECF No. 147 at 3.) The survey questions were designed by Steinagel, DiFederico, and Landowners' counsel. (*Id.*) Steinagel's staff transcribed the survey questions into the Qualtrics survey interface program, made sure it flowed properly, and submitted the survey to Qualtrics. (*Id.* at 4.) Then a Qualtrics employee "ran this survey and provided the necessary format to assure the survey was reliable." (*Id.*) Qualtrics sent the survey to randomly selected individuals in a database provided by an entity called Tap Research ("TAP"). (*Id.*) "Qualtrics regularly does surveys with TAP and considers it a top provider in the market." (*Id.* (citing ECF No. 147-1 at 1 ("In the industry they . . . are considered reliable."))) The TAP database contains "participants 18 years and over." (ECF No. 134-2 at 2.) Steinagel provided links to TAP's and SSI's websites in a supplement to his initial report. (*Id.* at 3.) Steinagel also provided links to several news articles about Qualtrics to demonstrate its reliability. (*Id.*)

Qualtrics I contained three screening questions. (ECF No. 147 at 3-4.) Respondents could only continue to the full survey if they answered yes to at least one of the screening questions. (*Id.*) The screening questions were:

- Do you travel to Las Vegas or plan to travel to Las Vegas within the next several years?
- 2. Are you interested in extraterrestrials and/or government conspiracies?
- 3. Have you heard of Area 51?

(*Id.* at 4 (citing ECF No. 133-20 at 2).) The next seven questions purportedly tested respondents' "interest in participating in an Area 51 excursion:"

4. In which North America region do you live? (West, Midwest, Southwest, Southeast, Northeast, Canada, Mexico, outside America)

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5. How often do you visit Las Vegas in a one year period? (less than one time per year, one to three times per year, four to seven times per year, eight to eleven times per year, twelve or more times per year)

6. During your stay in Las Vegas, how many excursions/sightseeing opportunities do you typically participate in? (zero, one, two, three, four

or more)

- 7. Please rank your likelihood to participate in the following excursions based on your interest (1 indicates you are most likely). (Grand Canyon; Hoover Dam; Area 51, including a visit where you have an unobstructed view of the Area [5]1 base; Zion National Park/Bryce Canyon; Red Rock Canyon; Death Valley; Valley of Fire; Lake Mead; other)
- 8. Would you be interested in visiting a location where you have an unobstructed view of Area 51? (yes, no)
- 9. When traveling to Las Vegas, would you be interested in visiting a location where you have an unobstructed view of Area 51? (yes, no)
- 10. What intrigues you about Area 51? (interested in government/historic landmarks; interested in extraterrestrials/government conspiracies; interested in Area 51 specifically)

(ECF No. 147 at 4; ECF No. 133-20 at 2-3.)

### 2. Qualtrics II

The second Qualtrics survey ("Qualtrics II") apparently attempted to gauge respondents' willingness to pay for an excursion to the Property. (See ECF No. 147 at 5.) The survey was designed and carried out in a similar manner as Qualtrics I (see id.), though the database of participants came from SSI instead of TAP. (ECF No. 134-2 at 2.) Qualtrics II contained three screening questions. (ECF No. 147 at 5.) Respondents could only proceed to the full survey if they answered yes to all three questions. (Id.) The screening questions were:

- Q1.1 Have you heard of the secret military base located in Nevada known as "Area 51?"
- Q1.2 Would you be interested in purchasing a one day's entry past military guard gates and onto the only private property in the world with an exclusive and unobstructed view of the secret military base known as "Area 51"?
- Q1.3 Would you be willing to submit to a security background check in order to obtain a one day's entry past the military guard gates onto the only private property in the world with an exclusive and unobstructed view of the secret military base known as "Area 51"?

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(*Id.* (citing ECF No. 133-22 at 2)) Individuals who responded yes to all three of the screening questions were then asked how much they would be willing to pay to enter the Property:

Q2.1 Would you be willing to pay \$1,000 (one thousand dollars) to be one of the limited persons that could get a one day's entry past military guard gates onto the only private property in the world with an exclusive and unobstructed view of the secret military base known as "Area 51"?

If the answer is yes, the survey skips to the next section of demographic questions. (*Id.*) Respondents who answered no would be presented with the same question but a different dollar amount: first \$750, then \$500, and finally \$250. (*Id.*) Respondents then answered certain demographic questions. (*Id.*)

### 3. ARCI

The first survey administered by the Alien Research Center ("ARC I") also apparently sought to gauge demand and willingness to pay to visit the Landowners' Property.<sup>3</sup> (See ECF No. 147 at 6.) The questions in ARC I "were prepared with the assistance of the Landowners' experts." (*Id.* at 5.) The survey was administered by the owner of the ARC between April and June 2016. (*Id.* at 5-6.) The owner's staff asked customers to fill out the paper survey in exchange for a magnet. (*Id.*) ARC I contained five questions:

- In what Country and City do you live?
- 2. Have you heard of Area 51?
- 3. Are you interested in extraterrestrials and/or government conspiracies?
- 4. Would you be interested in visiting a location where you have an unobstructed view of the Area 51 facility?
- 5. How much would you pay to visit a location where you have an unobstructed view of the Area 51 facility? (\$250 \$350; \$350 \$450; \$450 \$550; \$550 \$1,000; \$1,000 or more)

(ECF No. 147 at 6; ECF No. 133-10 at 2.)

<sup>&</sup>lt;sup>3</sup>The Court has numbered the ARC surveys consistently with the Landowners' numbering scheme, but there is some ambiguity in the record as to which ARC survey came first. The United States labeled the four-question ARC survey as ARC I (ECF No. 133-9 at 1-2), but Landowners labeled it as ARC II (ECF No. 147 at 6). The United States labeled the five-question ARC survey as ARC II (ECF No. 133-10 at 1-2), but Landowners labeled it as ARC I. (ECF No. 147 at 6).

### 4. ARC II

The second survey administered by the Alien Research Center ("ARC II") similarly attempted to gauge demand and willingness to pay. The survey was designed and carried out in the same way as ARC I but was administered between June and November 2016. (ECF No. 147 at 6.) ARC II contained four questions:

- 1. In what Country and City do you live? (open-ended)
- 2. Have you heard of Area 51? (yes, no)
- 3. Would you be willing to pay an admission price of \$300 to obtain a one day's entry past the military guard gates and entrance onto the only private property in the world with an exclusive and unobstructed view of the Area 51 facility? (yes, no)
- 4. Would you be willing to pay an admission price of \$500 or more to obtain a one day's entry past the military guard gates and entrance onto the only private property in the world with an exclusive and unobstructed view of the Area 51 facility? (yes, no)

(ECF No. 147 at 6; see also ECF No. 133-9 at 2 (containing slightly different wording for the fourth question).)

### B. ADMISSIBILITY OF SURVEYS

Surveys are admissible if they are relevant, conducted according to accepted principles, and set upon a proper foundation for admissibility. *Clicks Billiards, Inc. v. Sixshooters, Inc.*, 251 F.3d 1252, 1263 (9th Cir. 2001). As long as surveys "are conducted according to accepted principles,' survey evidence should ordinarily be found sufficiently reliable under [*Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993)]." *Southland Sod Farms v. Stover Seed Co.*, 108 F.3d 1134, 1143 n.8 (9th Cir. 1997) (quoting *E. & J. Gallo Winery v. Gallo Cattle Co.*, 967 F.2d 1280, 1292 (9th Cir. 1992)). The proponent bears the burden of showing "that the survey was conducted in accordance with generally accepted survey principles and that the results were used in a statistically correct manner." *Keith v. Volpe*, 858 F.2d 467, 480 (9th Cir. 1988). In the absence of evidence that the surveys were conducted in accordance with generally accepted principles, surveys have been inadmissible when their creators were not qualified to design or interpret surveys, *Elliott v. Google, Inc.*, 860 F.3d 1151, 1160 (9th Cir. 2017); *M2 Software, Inc. v. Madacy Entm't*, 421 F.3d 1073, 1087 (9th Cir. 2005); see also *United States v. 0.59 Acres of Land*, 109

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F.3d 1493, 1496 (9th Cir. 1997) (noting that an "unscientific" survey "prepared by a non-witness of unknown qualifications" violated Fed. R. Evid. 703 and would not meet the *Daubert* standards for scientific evidence), and when the experts introducing the surveys did not actually conduct them, *F.T.C. v. Commerce Planet, Inc.*, 642 F. App'x 680, 682 (9th Cir. 2016), *cert. denied sub nom. Gugliuzza v. F.T.C.*, 137 S. Ct. 624 (2017).

"Once the survey is admitted, follow-on of however, issues methodology, survey design, reliability, the experience and reputation of the expert, critique of conclusions, and the like go to the weight of the survey rather than its admissibility." Clicks Billiards, Inc., 251 F.3d at 1263. "Unlike novel scientific theories, a jury should be able to determine whether asserted technical deficiencies undermine a survey's probative value." Southland Sod Farms, 108 F.3d at 1143 n.8. "Technical inadequacies in the survey, including the format of the questions or the manner in which it was taken, bear on the weight of the evidence, not its admissibility." Keith, 858 F.2d at 480. Thus, even surveys with technical problems such as improper participant pools, biased questions, Southland Sod Farms, 108 F.3d at 1143, or flawed coding of responses, E. & J. Gallo Winery, 967 F.2d at 1292, are admissible.

### C. DISCUSSION

The United States argues that none of the survey data is admissible because none of the surveys conform to generally accepted principles of survey research. (ECF No. 133 at 15.) The United States also argues that even if the surveys conform with generally accepted principles, they cannot be admitted consistently with Fed. R. Evid. 702 and the United States Supreme Court's holding in *Daubert*. (*Id.* at 20-23.) The United States further argues that the surveys' probative value is substantially outweighed by risk of unfair prejudice under Fed. R. Evid. 403. (*Id.* at 23-24.) The Court disagrees and finds that the surveys are admissible.

### 1. Accordance with Generally Accepted Principles

The United States argues that the experts and Landowners' counsel flouted generally accepted survey research principles by including biased questions, reporting

survey results inaccurately, and failing to identify the proper target population and sampling frame. (*Id.* at 15.) The United States identifies a number of generally accepted principles of survey research, the following of which are relevant here: (1) the proper universe was selected and examined; (2) a representative sample was drawn from that universe; (3) the data gathered were accurately reported; (4) the mode of questioning the interviewees was correct; and (5) the sample design, the questionnaire and the interviewing were in accordance with generally accepted standards of objective procedure and statistics in the field of such surveys. (*Id.*) The United States argues that the surveys do not comport with (1) and (2) because none of Landowners' experts identified the target population or sampling frame; with (3) because the experts do not address certain inconsistencies in the data; and with (4) and (5) because the surveys contain biased questions. Landowners respond that the degree to which a survey conforms to these principles affects only probative value, not admissibility. (ECF No. 147 at 22 (citing *Southland Sod Farms*, 108 F.3d at 1143).)

The Landowners are at least partially correct. The Ninth Circuit has expressly and consistently held that the bias of survey questions bears on the survey's probative value rather than its admissibility. See Southland Sod Farms, 108 F.3d at 1143; E. & J. Gallo Winery, 967 F.2d at 1292. Accordingly, the United States' arguments that the survey questions are ambiguous, biased, and leading do not affect the surveys' admissibility.

Whether the surveys' failure to conform with the other principles the United States identifies bears on weight or admissibility is less clear. However, the Ninth Circuit's standard clearly favors admissibility by assigning the following factors to surveys' probative value instead of admissibility: methodology, survey design, reliability, the experience and reputation of the expert, critique of conclusions, technical inadequacies, the format of the questions, the manner in which it was taken, and "the like." See Clicks Billiards, Inc., 251 F.3d at 1263; Keith, 858 F.2d at 480.

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### a. Proper Universe and Representative Sample

The United States contends that the surveys "do not identify a target universe or population or show how, or even whether, a representative sample was drawn from that universe or population." (ECF No. 133 at 15.) Whether a survey's departure from these principles bears on weight or admissibility is not entirely clear. On the one hand, critiquing the selection of a target universe and sampling technique could amount to critique of methodology, a critique that bears on the weight rather than the admissibility of surveys under Ninth Circuit precedent. Clicks Billiards, Inc., 251 F.3d at 1263; see also Water Pik, Inc. v. Med-Sys., Inc., No. 10-CV-01221-PAB-CBS, 2012 WL 202782, at \*4 (D. Colo. Jan. 24, 2012) ("Technical and methodological deficiencies in the survey, including the sufficiency of the universe sampled, bear on the weight of the evidence, not the survey's admissibility."). On the other hand, these principles could be considered basic, generally accepted principles of survey research. Indeed, they are enumerated among general principles of survey research in the Reference Manual on Scientific Evidence, a reference source co-published by the Federal Judicial Center and the National Academy of Sciences. Shari Seidman Diamond, Reference Guide on Survey Research, in REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 376-79 (3d ed. 2011) [hereinafter Reference MANUAL ON SCIENTIFIC EVIDENCE]. Numerous United States Circuit Courts of Appeals have cited these principles when evaluating the admissibility of sample surveys, see, e.g., Lutheran Mut. Life Ins. Co. v. United States, 816 F.2d 376, 378 (8th Cir. 1987); Pittsburgh Press Club v. United States, 579 F.2d 751, 758 (3d Cir. 1978); Bank of Utah v. Commercial Sec. Bank, 369 F.2d 19, 27 n.8 (10th Cir. 1966), as have numerous district courts within the Ninth Circuit, see, e.g., Elliot v. Google Inc., 45 F. Supp. 3d 1156, 1167 (D. Ariz. 2014), aff'd sub nom. Elliott v. Google, Inc., 860 F.3d 1151 (9th Cir. 2017); Calista Enterprises Ltd. v. Tenza Trading Ltd., 43 F. Supp. 3d 1099, 1111 (D. Or. 2014); Reinsdorf v. Skechers U.S.A., 922 F. Supp. 2d 866, 878 (C.D. Cal. 2013). The Court finds that the Landowners identified a target population and drew an adequate sample through the use of screening questions.

"The target population consists of all elements (i.e., individuals or other units) whose characteristics or perceptions the survey is intended to represent." REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 376. Landowners' experts and counsel do not explicitly identify the surveys' target population, but it is readily apparent that the target population is anyone who would be interested in visiting the Property. This is clear from the way the experts used the survey data as well as the survey questions themselves. The experts primarily used the survey data to predict how much money individuals would pay to visit the Property.4 (ECF No. 133-2 at 4; ECF No. 133-5 at 108; ECF No. 133-16 at 108; ECF No. 133-17 at 9; ECF No. 133-18 at 7-8.) The only population relevant to the question of willingness to pay consists of individuals who would be interested in visiting the Property. Individuals uninterested in visiting the Property would not pay anything at all (or might require compensation) to visit the Property. The survey questions themselves also seem to focus on the population of individuals interested in visiting the Property. The surveys contained screening questions that resulted in the collection of data only from individuals who were interested or likely to be interested in visiting the Property. Qualtrics I only included individuals who travel to Las Vegas regularly, had plans to travel to Las Vegas in the next few years, possessed an interest in government conspiracies, or had heard of Area 51. (See ECF No. 147 at 4; ECF No. 133-20 at 2.) These screening questions are overinclusive, sweeping in individuals who might be interested in visiting the general geographic area but not the Property specifically. But the included individuals are almost certainly more likely to have an interest in visiting the Property than those who were screened out. Qualtrics II only included individuals who had heard of Area 51, were interested in purchasing a one-day entry "past military guard gates and onto the only private property in the world with an exclusive and unobstructed view" of Area 51, and were willing to submit to a background check. (ECF No. 147 at 5.) The ARC surveys were only administered to individuals who were presumptively interested in visiting the Property.

<sup>&</sup>lt;sup>4</sup>The Clarion report used the data for the additional purpose of determining that demand for visiting the Property was "high." (ECF No. 133-5 at 106.)

Individuals who took the ARC surveys had trekked to the rather remote Alien Research Center where few attractions exist other than those that draw extraterrestrial enthusiasts (who would likely be interested in visiting the Property). (See ECF No. 147 at 5-6.)

"The sampling frame is the source (or sources) from which the sample actually is drawn." REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 377. The sampling frame here consisted of the following four sources: the TAP database of participants ages eighteen and older (Qualtrics I) (see ECF No. 134-2 at 2); the SSI database of participants ages eighteen and older (Qualtrics II) (see id.); individuals who visited the Alien Research Center during April, May, and June 2016 (ARC I) (see ECF No. 147 at 5-6); and individuals who visited the Alien Research Center between June and November 2016 (ARC II) (see id.).

The target population and sampling frame often fail to overlap completely in survey research. Reference Manual on Scientific Evidence 378. Such is the case here, where the sampling frame excludes part of the target population. The target population comprises all individuals who would be interested in visiting the Property, but the sampling frame was limited to individuals who are part of the TAP or SSI databases and individuals who visited the Alien Research Center between April and November 2016. Excluded from the sampling frame, for example, is a hypothetical individual who is interested in visiting the Property but went to the Alien Research Center in January 2016 before the ARC surveys began. Thus, the sampling frame is underinclusive. See Reference Manual on Scientific Evidence 378.

Underinclusive sampling frames may affect probative value: "If the coverage is underinclusive, the survey's value depends on the proportion of the target population that has been excluded from the sampling frame and the extent to which the excluded population is likely to respond differently from the included population." *Id.* But the effect of an underinclusive sampling frame can be virtually impossible to quantify. "In some cases, it is difficult to determine whether a sampling frame that omits some members of the population distorts the results of the survey and, if so, the extent and likely direction of

the bias." REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 379. An example of this difficulty is described in the REFERENCE MANUAL ON SCIENTIFIC EVIDENCE:

[A] trademark survey was designed to test the likelihood of confusing an analgesic currently on the market with a new product that was similar in appearance. The plaintiff's survey included only respondents who had used the plaintiff's analgesic, and the court found that the target population should have included users of other analgesics, 'so that the full range of potential customers for whom plaintiff and defendants would compete could be studied.' In this instance, it is unclear whether users of the plaintiff's products would be more or less likely to be confused than users of the defendants' product or users of a third analgesic."

Id. at 379 (citing American Home Prods. Corp. v. Barr Lab., Inc., 656 F. Supp. 1058 (D.N.J.), aff'd, 834 F.2d 368 (3d Cir. 1987)). The situation here is analogous. Just as it was unclear whether users of the plaintiff's products would be more or less likely to be confused than users of a different product in American Home, it is unclear whether extraterrestrial enthusiasts who were included in the sampling frame (those who are part of the TAP or SSI databases and those who visited the Alien Research Center between April and November 2016) would pay more or less than extraterrestrial enthusiasts who were not.

Nevertheless, the underinclusive or overinclusive nature of the surveys does not preclude admissibility. The Fifth Circuit discussed the adequacy of an overinclusive target population in *Honestech, Inc. v. Sonic Sols.*, 430 F. App'x 359 (5th Cir. 2011). In that case, Honestech, a technology company, sued another company called Sonic Solutions ("Sonic") for trademark infringement. *Id.* at 360. Both sold VHS to DVD converters with similar marks: "VTD" (Honestech's mark) and "EVTD" (Sonic's mark). *Id.* At trial, Sonic sought to introduce a sample survey showing that the VTD mark was not distinctively associated with Honestech. *Id.* The trial court admitted the survey over Honestech's objection, and the jury found in Sonic's favor. *Id.* On appeal, Honestech argued that the survey expert failed to identify the correct target population of relevant consumers (mature males who previously purchased analog-to-digital converter products or might in the future) by using overinclusive screening questions. *Id.* at 360-61. The screening questions resulted in the inclusion of all those who "bought or participated in selecting computers

capable of playing analog content; and had audio or video material recorded in an analog format." *Id.* at 362. The Fifth Circuit affirmed the trial court, finding that the survey's screening questions reflected "a reasonable attempt to identify individuals who would be interested in buying the software" and that the questions, at the very least, "eliminated individuals that would be unlikely to have any need for the product." *Id.*The screening questions here similarly reflect a reasonable attempt to identify relevant individuals—those who would be interested in visiting the Property. Just as Sonic

and/or audio and video equipment for their household; owned . . . at least one device

The screening questions here similarly reflect a reasonable attempt to identify relevant individuals—those who would be interested in visiting the Property. Just as Sonic sought to identify only those individuals who were likely to buy a VHS to DVD recorder, the surveys here sought to identify only those individuals who were likely to "buy" the experience of visiting Area 51. In both cases, the only relevant individuals were those conceivably interested in purchasing the product (or here, an experience). The target universe was adequate in *Honestech* even though the screening questions were imprecise, and the same outcome is appropriate here. Though the Landowners' targeting and sampling was imperfect, even a survey that is "not a good survey" deserves its day before the jury under Ninth Circuit precedent. *Wendt v. Host Int'l, Inc.*, 125 F.3d 806, 813 (9th Cir. 1997).

### b. Accurate Reporting

The United States further argues that data collected in the Qualtrics surveys was not reported accurately. (ECF No. 133 at 20.) First, the United States identifies an inconsistency between the meaning of certain numerical values in Qualtrics I. (*Id.*) The seventh question of Qualtrics I asked respondents to rank their interest in visiting a number of tourist destinations such as Zion National Park, Death Valley, and Area 51 on a numerical scale from one to four. (ECF No. 133-20 at 3.) According to expert reports and work files submitted by Clarion, DiFederico, and Clauretie, a response of one indicates that the respondent is "most likely" to visit the destination. (*Id.* (Clauretie); ECF No. 133-31 at 2 (DiFederico); ECF No. 133-30 at 2 (Clarion).) But according to Landowners'

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counsel, a response of one indicates that the respondent is "unlikely to visit." (ECF No. 133-32 at 3.)

Technical inadequacies, including improper or anomalous coding, bear on weight, not admissibility. E. & J. Gallo Winery, 967 F.2d at 1292. The inconsistency between the work files and the explanation of the surveys provided by Landowners' counsel amounts to a technical inadequacy (or perhaps a miscommunication) that affects only the survey's probative value, not its admissibility.

Second, the United States identifies a supposed inconsistency regarding the number of respondents to Qualtrics II. (ECF No. 133 at 20.) According to Clauretie's work file, all respondents (525) answered yes to all three screening questions. (ECF No. 133-22 at 2.) But according to Landowners' counsel, 995 individuals took the survey. (ECF No. 133-21 at 2.) Landowners explain that 470 individuals were screened out because they did not answer yes to all three screening questions, leaving 525 who were included in the full survey. (Id.) In light of the explanation by Landowners' counsel, it is apparent that the data in Clauretie's work file only included the responses of individuals who completed the full survey. The United States has not identified a material inconsistency.

#### 2. Rule 702 and *Daubert*

The United States argues that Landowners' experts have failed to comply with Rule 702 and the United States Supreme Court's holding in *Daubert*. (ECF No. 133 at 20-23.) In addition, the United States suggests that Ninth Circuit case law regarding the admissibility of surveys is limited to trademark cases.<sup>5</sup> (*Id.* at 20 n.50.) The Court evaluates the United States' argument in light of the Ninth Circuit's dicta that survey evidence "should ordinarily be found sufficiently reliable" under Daubert as long as the surveys are conducted according to accepted principles. Southland Sod Farms v. Stover Seed Co., 108 F.3d 1134, 1143 n.8 (9th Cir. 1997).

<sup>&</sup>lt;sup>5</sup>Ninth Circuit precedent regarding the admissibility of surveys depends on interpretation of Rule 702 and Daubert. See, e.g., Fortune Dynamic, Inc. v. Victoria's Secret Stores Brand Mgmt., Inc., 618 F.3d 1025, 1035 (9th Cir. 2010); Southland Sod Farms v. Stover Seed Co., 108 F.3d 1134, 1143 n.8 (9th Cir. 1997).

The United States first argues the expert witnesses have not determined that the surveys are reliable by the standards in their respective fields. (ECF No. 133 at 20-21.) Subsequent to the United States' motion to exclude, most of the experts submitted declarations stating that they are familiar with the survey methods and find them reliable. DiFederico submitted a declaration attesting that he "assisted with drafting the Qualtrics Surveys . . . understands how both the Qualtrics and ARC Surveys were conducted . . . and . . . believe[s] the Surveys to be reliable and relevant." (ECF No. 147-6 at 1.) DiFederico also stated in his declaration that the survey data "is the type of data I rely upon as an expert appraiser in the normal course of appraising property." (Id.) Clauretie submitted a declaration stating, "I understand the methodology of both Surveys, consider them to be reliable and relevant to my analysis, and in my field, we regularly rely upon surveys and reports by other experts." (ECF No. 147-8 at 1.) Steinagel submitted a two-page supplemental report describing the Qualtrics surveys and noting the reliability of Qualtrics. (ECF No. 147-1.) The authors of the Clarion report did not submit a declaration, but their expert report states that the authors "understand the survey research approach undertaken by Qualtrics and consider that research to be appropriately supported." (ECF No. 172 at 6 (quoting ECF No. 133-5 at 39).) These assertions are sufficient to show that the experts determined that the surveys are reliable by the standards in their respective fields.

The United States further argues that surveys constitute contingent valuation, a method of valuing real property that is unreliable based on one of the expert's own publications. (ECF No. 133 at 21-22 (citing ECF No. 133-33).) But the surveys have not been used to value real property directly. Instead, the surveys measured respondents' willingness to pay for travel and admission to the Property if it were transformed into a tourist destination. The suitability of contingent valuation for homes that cost hundreds of thousands of dollars likely differs from the suitability of contingent valuation for a recreational tourism experience that costs far less. And to the extent that contingent valuation leads to results that inaccurately reflect the actual price that would be paid in a

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hypothetical market, it is the probative value of the surveys rather than their admissibility that diminishes.

### 3. Probative Value and Prejudice

The United States argues that the surveys' probative value is substantially outweighed by risk of unfair prejudice under Fed. R. Evid. 403. (ECF No. 133 at 23-24.) The probative value of the surveys is low because they are rudimentary and unsophisticated, especially relative to the kind of high-caliber surveys one could imagine being produced by research specialists with extensive experience designing and administering sample surveys. But the surveys' tendency to prejudice the United States is equally low due to their inadequacies. The Court finds that the surveys' probative value is not substantially outweighed by risk of unfair prejudice.

## V. PLAINTIFF'S MOTION TO EXCLUDE OPINIONS OF LANDOWNERS' EXPERT CAMERON STEINAGEL (ECF NO. 134)

Cameron Steinagel of the Innovation Group prepared an expert report "to determine the demand for visiting the Groom Mine Property" as well as "the amount of money that those who have an interest in visiting the Groom Property would pay to visit the property" if it were transformed into a recreational tourism destination. (ECF No. 134-1 at 2.) The United States argues that the Steinagel report is unreliable because it is based on faulty methodology. (ECF No. 134 at 13.) Specifically, the United States argues that Steinagel improperly calculated visitor demand, growth rates, and the number of overnight guests that could be expected. (*Id.*) In addition, the United States argues that Steinagel improperly relied upon data from the Qualtrics surveys and failed to provide an adequate basis for his opinion that transforming the Property into a recreational tourism destination is financially reasonable. (*Id.* at 17-18.) The Court finds that Steinagel's methodology is sufficiently reliable to be admissible and that any methodological inadequacies bear on the report's probative value rather than its admissibility.

### 1. Calculation of Visitor Demand

The Steinagel report concludes that about 150,000 to 200,000 individuals would visit the Property each year if it were transformed into a recreational tourism destination with a "café selling various types of American fare, a retail gift shop, a view area, site tours, etc." (ECF No. 133-2 at 3.) Steinagel based these figures on the number of vehicles traveling the Extraterrestrial Highway that are not part of everyday pass-through traffic. (ECF No. 148 at 8.) (The Extraterrestrial Highway—formerly Highway 3756—contains the turn-off for the Property and connects the abandoned towns of Warm Springs at its western terminal and Crystal Springs at its eastern terminal.) Steinagel calculated this number in two stages. First, he found the total number of vehicles that travel the Extraterrestrial Highway annually. (ECF No. 148-6 at 1-3.) Then he calculated the number of those vehicles that could be attributed to everyday pass-through traffic (e.g., commuters) and deducted that number from the total number of vehicles traveling the Extraterrestrial Highway. (See id.) The United States finds fault with the methodology involved in Steinagel's second-stage calculations—the number of vehicles attributable to everyday pass-through traffic. (See ECF No. 134 at 4-6.)

To find the total number of vehicles traveling the Extraterrestrial Highway annually, Steinagel found the average annual daily traffic counts for two points at either end of the highway. (See ECF No. 148-6 at 1-3.) Steinagel explicitly assumed that vehicles do not pass both points because the "points on Highway 375 do not work as a shortcut or alternative route to any measurable population bases." (*Id.* at 3.) In other words, individuals approach Area 51 attractions from one side or the other, then go back the way they came after visiting the attractions. Cars pass the traffic counter at the western end, near Warm Springs, 150 times a day on average. (*Id.* at 2.) Cars pass the traffic counter at the eastern end, near Crystal Springs, 250 times a day on average. (*Id.*) Steinagel

<sup>&</sup>lt;sup>6</sup>See Carla Hall, *'Extraterrestrial Highway' Gets Green Light in Nevada*, L.A. TIMES, Feb. 3, 1996, at 1.

<sup>&</sup>lt;sup>7</sup>The Nevada Department of Transportation has traffic counters set up at these points and public reports the results. (See ECF No. 148-6 at 1-3.)

converted these numbers from daily averages to annual averages by multiplying them by 365. (*Id.* at 3.) Steinagel then divided both numbers by two to account for cars passing the same traffic counter twice—once coming and once going. (*Id.*) Steinagel concluded that 73,000 unique vehicles drive on the Extraterrestrial Highway annually. (*Id.*)

To find the number of vehicles in pass-through traffic, Steinagel found several possible values then selected the most conservative among them (i.e., the highest number of pass-through vehicles). First, Steinagel hypothesized that ten to thirty-five percent of total traffic was pass-through based on the research of a traffic engineering and planning firm in New Orleans. (*Id.*) Then Steinagel calculated real values to compare to these hypothesized values. The first comparator Steinagel calculated was the average annual number of cars passing a traffic counter at the intersection of the Extraterrestrial Highway and Groom Lake Road (the turn-off for the Property). (*See id.*) Steinagel found that the average annual traffic count at that intersection was 14,600, or about 20% of total traffic. (*Id.*) The second comparator Steinagel calculated was purportedly the number of vehicles in commuter flow. (*Id.*) Steinagel found that number to be 24,398, or about 33.5% of all traffic. (*Id.*)

Significant flaws exist in Steinagel's calculation of the second comparator. First, Steinagel failed to include relevant data. Using data from the U.S. Census Bureau, Steinagel found that 1,743 workers are in commuting flow from Clark County to Nye County (the county containing the western traffic counter near Warm Springs) for work, and 10,465 workers are in commuting flow within Nye County for a sum of 12,199. (*Id.*) Inexplicably, Steinagel did not include commuters from Clark County to Lincoln County (the county containing most of the Extraterrestrial Highway as well as the eastern traffic counter near Crystal Springs), Nye County to Clark County, or Lincoln County to Clark County. Second, Steinagel multiplied the number of workers in commuting flow by two to arrive at (purportedly) the number of trips commuters made (24,398). (*Id.*) But the data sources that Steinagel relied upon list the number of individuals in commuter flow—not the number of trips they make annually. (ECF No. 134-4 at 2.) Thus, two is the wrong

multiplication factor. The appropriate multiplication factor would be much higher (the United States suggests 241 (ECF No. 134 at 6)) because the workers in commuting flow presumably are commuting more than one day per year. Landowners do not explain Steinagel's reasoning or apparent mistake (see ECF No. 148 at 9), nor does Steinagel offer any explanation in a declaration he submitted after Plaintiffs argued that these mistakes rendered his report unreliable (ECF No. 148-6 at 3).

The flaws in Steinagel's calculation of the second comparator ultimately amount to harmless error for the purposes of admissibility, though. Steinagel settled on a de facto pass-through traffic rate of 33.5%, very close to the highest end of his hypothesized range of values. In addition, the United States' suggested approach (multiplying the number of individuals in commuting traffic by 241) yields a result that lies far outside Steinagel's hypothesized range of values. Even taking Steinagel's low-ball calculation of the number of individuals in commuting flow as the appropriate referent, the average annual number of vehicles in pass-through traffic would be about three million, more than forty-one times the total number of vehicles traveling the Extraterrestrial Highway annually based on Steinagel's calculations. This makes for a pass-through traffic rate of 4100% compared to the hypothesized range of 10% to 35%. Steinagel's overall methodology—finding total traffic and subtracting pass-through traffic—is sensible, and technical errors in his calculations detract from his credibility rather than the admissibility of his testimony.

### 2. Calculation of Growth Rates

Steinagel predicted the growth rate of visitor demand for the Property if it were transformed into a tourist destination based on the growth rates of visitor demand at similar tourist destinations (e.g., Hoover Dam) following the development of new infrastructure. (ECF No. 148 at 10.) The United States argues that Steinagel's growth rates are rife with errors and impossibilities. (ECF No. 134 at 7-9.)

The United States first argues that there are discrepancies between Steinagel's calculations and data sources. (ECF No. 134 at 8.) Steinagel labeled each of his calculated growth rates as "5 years before [the property's respective infrastructure improvement]"

and "5 years after" (ECF No. 134 at 8 (citing ECF No. 134-3 at 6)), but Steinagel's work file only contains visitation data for two years after infrastructure improvements at Hoover Dam (*id.* (citing ECF No. 134-3 at 6-8)). Steinagel explains in his declaration that his ultimate opinion did not reference five-year growth rates for this reason. (ECF No. 148-6 at 5; *see also* ECF No. 134-1 at 3 (describing the growth rate of visitation without referencing a five-year period).) The Court finds Steinagel's explanation sufficient, especially given that the "5 year before" and "5 year after" labels appeared only in a work file that was not necessarily conceived of as a polished final product suited for public examination.

The United States next argues that Steinagel erred in calculating growth rates. (ECF No. 134 at 8.) The United States demonstrates that the arithmetic mean of the source growth rates is different from the growth rates Steinagel calculated. (*Id.*) But the United States incorrectly assumed the arithmetic mean was the basis for the growth rates that Steinagel calculated. (*See id.*) In fact, Steinagel calculated compound annual growth rates, rates that result from a different calculation than that used to find an arithmetic mean. (ECF No. 148-6 at 8.)

The United States next argues that Steinagel failed to account for factors that influence visitor demand besides the construction of new infrastructure. (ECF No. 134 at 8.) Compound annual growth rates account for other factors such as gas prices and weather patterns, however. (See ECF No. 148-6 at 5.)

The United States next argues that Steinagel added two full growth rates and one half growth rate to predict the growth rate of visitor demand in Development Scenario 2 without explanation. (ECF No. 134 at 8-9.) Steinagel's report contemplates two different development scenarios. In Development Scenario 1, Steinagel conceived of the Property as a recreational tourist destination with twenty small cabins, a visitors' center with an observation area, a retail shop, a restaurant, and "other typical amenities." (ECF No. 133-2 at 3.) In Development Scenario 2, Steinagel assumed that the Property contained only a retail shop, restroom facilities, and a viewing area. (*Id.* at 4.) Regarding the addition of

growth rates, Steinagel explained in a declaration filed subsequent to his expert report that he added the growth rates because "we only calculated the incremental visitation growth for each individual development enhancement. As people are induced to visit certain destinations, they are exponentially induced as more options, amenities and access is [sic] developed on site. As such, by adding 7.91%+8.67%+2.00%, we have an initial incremental growth rate of 18.58%." (ECF No. 148-6 at 8.) Steinagel's explanation is not wholly satisfactory because it does not explain why he added only half a growth rate in Development Scenario 2 or why half the growth rate (as opposed to one-fourth or three-fourths of the growth rate) was appropriate.

Nevertheless, the Court finds that this question about Steinagel's work bears on the probative value of his testimony rather than its admissibility. In Development Scenario 2, Steinagel assumed that fewer infrastructural improvements were built. As such, it was appropriate to reduce the growth rate for Development Scenario 2, especially given Steinagel's theory that each subsequent improvement to a property yields an exponential increase in visitor demand. If Steinagel had used the same growth rate (or a higher growth rate) in Development Scenario 2, then admissibility might be at stake because such a growth rate would contradict his express theory of how infrastructure improvements affect growth rates. Steinagel's overall approach appears to be reliable, and further explanations of Steinagel's decisions are likely to surface in discovery.

### 3. Calculations of Overnight Guests

The United States argues that Steinagel failed to explain how he calculated the number of overnight guests that he predicted in Development Scenario 1. (ECF No. 134 at 16.) Steinagel explained his methodology in his subsequent declaration, and it appears to be reasonable. (ECF No. 148 at 11 (quoting ECF No. 148-6 at 9).) Steinagel identified his sources, calculations, and assumptions. (See ECF No. 148-6 at 9.) In addition, Steinagel stated that "[t]his is the type of information and data that I use in my field of preparing demand and pricing report [sic] and financial feasibility reports[,] and I consider this to be reliable and relevant to my analysis on demand in this matter." (ECF No. 148-6

at 10.) Landowners have sufficiently demonstrated the reliability of Steinagel's methodology.

### 4. Reliance on Qualtrics Surveys

The United States further argues that Steinagel relied on the Qualtrics surveys without assessing their reliability or credibility. (ECF No. 134 at 17.) This argument is addressed in the section of this order discussing the United States' motion to exclude the Qualtrics survey data, and the issue resolves in favor of Landowners. *See supra* Section III.

### 5. Financial Reasonableness

The United States argues last that Steinagel failed to provide an adequate basis for his opinion that transforming the Property into a recreational tourism destination is financially reasonable. (ECF No. 134 at 17-18.) The Landowners' response provides further explanation that adequately supports Steinagel's conclusions. (See ECF No. 148 at 13.) First, Steinagel calculated the income that could be generated by the property if it were turned into a tourist destination. (Id.) Then Steinagel subtracted the maximum "amount it would cost to get a tourist commercial use started on the Property." (Id.) Steinagel concluded that tourist commercial use was financially reasonable because the maximum "one time cost of fully building out a tourist commercial use is [about \$5 million, far less than] the potential annual income [which] is between [about \$28 million and \$85 million]." (Id.) This methodology appears to be reliable, and the United States has not demonstrated otherwise.

## VI. PLAINTIFF'S MOTION TO EXCLUDE MINERAL RESOURCE ESTIMATE OPINION OF NEXUS GEOS, LLC (ECF NO. 130)

The United States moved to exclude an expert report authored by Nexus Geos, LLC ("NGL"). (ECF No. 130.) NGL concluded in its report that there are one million tons of indicated resources and nine million tons of inferred resources remaining beneath the Property. (ECF No. 146 at 7.) Although the report suffers from at least one serious inadequacy (its leap from qualitative considerations to quantitative conclusions), the Court

denies the United States' motion without prejudice given that the report's inadequacy could be cured through minimal additional discovery at this stage of the proceedings.

Plaintiff argues that NGL's mineral resource estimate is not reliable because it does not adhere to industry standards. (ECF No. 130 at 11.) NGL purportedly departed from industry standards by (1) failing "to provide adequate support for its reclassification of 1986 reserves to indicates resources under current standards;" (2) failing "to provide an adequate basis for its estimate of 9 million tons of inferred resources;" (3) failing to assess "reasonable prospects for eventual economic extraction" of lead and silver; and (4) misusing the EMINERS program and misstating the results of the program. (*Id.*)

### 1. Reclassification of Reserves

The United States first argues that NGL's expert report is unreliable because NGL classified the deposits at Groom Mine ("Deposits") as mineral resources rather than mineral reserves without sufficient explanation. (ECF No. 130 at 11.) NGL's explanation is somewhat meager: "In this report, McClung's estimate has been reclassified with the category 'indicated resource', required to meet current CIM Definition Standards." (ECF No. 130-1 at 24.) But Landowners have shown that NGL's decision to reclassify the Deposits actually makes its opinion more reliable than it otherwise would be.

NGL's decision to classify the Deposits as mineral resources resolves an ambiguity in an appraisal of the Property conducted by William McClung in the 1980s.<sup>8</sup> In that study, McClung described the Deposits as "indicated reserves" (ECF No. 130-1 at 24), but that terminology is meaningless under today's industry standards.<sup>9</sup> (ECF No. 146 at 16-17.)

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<sup>&</sup>lt;sup>8</sup>The United States' expert cites to a 1986 appraisal report (ECF No. 146-4 at 35), while NGL cites to a 1988 geological study that apparently contains McClung's conclusions (ECF No. 130-1 at 24, 27).

<sup>&</sup>lt;sup>9</sup>Both parties seem to agree that standards published by the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") as well as the Society for Mining, Metallurgy and Exploration ("SME") are current, generally accepted, and reliable. (See ECF No. 130 at 8; ECF No. 146 at 5.) CIM publishes definitions for mineral resources and mineral reserves. (ECF No. 130-2 at 2.) SME publishes a guide for reporting exploration results, mineral resources, and mineral reserves. (ECF No. 130 at 8-9.)

The word "indicated" describes mineral resources—not mineral reserves. <sup>10</sup> (See ECF No. 130-2 at 4-6.) "Mineral resource" is a term of art that describes "a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form grade or quality and quantity that there are reasonable prospects for eventual economic extraction." (*Id.* at 2.) Mineral resources are subdivided into inferred, indicated, and measured categories. (*Id.*) Indicated mineral resources have a confidence level somewhere in between inferred (lowest level of confidence) and measured (highest level of confidence) mineral resources. (*Id.*) "Mineral reserve," on the other hand, is a term of art that describes "the economically mineable part of a measured and/or indicated mineral resource." (*Id.* at 6.) Thus, "mineral reserve" may describe only a portion of a mineral resource—the portion that is economically mineable. Whether a portion of a mineral resource is economically mineable depends on numerous factors, including marketing, legal, environmental, social, and governmental factors. (ECF No. 130-5 at 10.) The term "mineral resource" thus is a more general term than "mineral reserve," encompassing a greater variety of deposits.

NGL faced an ambiguity in McClung's research and resolved that ambiguity in favor of a more general term (mineral resource) rather than a more specific term (mineral reserve). NGL's decision to do so lends more reliability to its report than it might otherwise merit. If NGL summarily described the "indicated reserves" as mineral reserves without considering marketing, legal, and other factors, then the reliability of its report could appropriately be called into question. The Court finds that NGL's reclassification of "indicated reserves" to "indicated resources" in this context does not render its report unreliable.

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<sup>&</sup>lt;sup>10</sup>Although by definition mineral reserves consist of portions of indicated or measured mineral resources. (See ECF No. 130-2 at 6 ("A Mineral Reserve is the economically mineable part of a Measured and/or Indicated Mineral Resource.").)

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### 2. Basis for Estimate of Inferred Resources

The United States additionally argues that NGL's mineral resource estimate should be excluded because it fails to provide adequate support for its calculation of nine million tons of inferred resources. (ECF No. 130 at 12.) According to the United States, NGL "identified five pieces of support for this estimate . . . [but did] not connect the dots on how these professed pieces of support lead to an estimate of nine million tons of inferred mineral resources." (Id.) A court "properly may exclude expert testimony if the court concludes too great an analytical gap exists between the existing data and the expert's conclusion." Kennedy v. Collagen Corp., 161 F.3d 1226, 1230 (9th Cir. 1998); San Diego Comic Convention v. Dan Farr Prods., No. 14-cv-1865 AJB-JMA, 2017 WL 4227000 (S.D. Cal. Sept. 22, 2017). Here, a significant analytical gap exists between the data and NGL's conclusion in the last substantive section of its report, titled "Inferred Resources." In that section, NGL concluded that an inferred resource at least nine times the size of the indicated resource may exist at Groom Mine based on the following qualitative and quantitative factors: (1) the capability of modern mining techniques to liberate four times as much ore as McClung estimated to be present; (2) the existence of the Black Metal Mine (rich in zinc) lying 200 feet below the Groom Mine; (3) the likely presence of additional deposits based on analogy to a similar mine (the Pioche Hills district located about 75 miles northeast of the Property); (4) the prediction of two or three additional deposits by the EMINERS program; and (5) the use of certain averages in calculating inferred resources. (ECF No. 130-1 at 25.) NGL has leaped from consideration of qualitative factors (e.g., the existence of additional deposits) to a specific multiplication factor (nine) without any explanation. The Court is "unable to determine how [NGL] formed [its] opinions" or that NGL used "a proven methodology that [it] can give to the jury so that they can make a rational decision." San Diego Comic Convention, 2017 WL 4227000, at \*8 (internal citation and quotation marks omitted).

Additional information in other sections of the report about each of the factors NGL considered does not justify or explain NGL's analytical leap. Regarding the first factor NGL

listed in the "Inferred Resources" section of the report—the efficiency of modern mining techniques—the report states: "If, however, the deposit were exploited with modern mining methods, 20% of the existing resources would have been extracted (Figure 16) or a resource increased [sic] by a multiple of four." (ECF No. 130-1 at 23.) This statement does not illuminate NGL's analytical leap because all of the information contained therein already appears among the five sources NGL identified as support for its quantitative conclusion. (*Id.* at 25.)

Regarding the second factor NGL listed in the "Inferred Resources" section of the report—the existence of the Black Metal Mine—the report states that the Black Metal Mine evinces mineralization extending "to depth." (ECF No. 130-1 at 6.) The report does not specify what depth or explain the meaning of the term "to depth," a possible term of art. The report also does not translate the existence of the Black Metal Mine into a quantitative multiplication factor. There is no explanation of how the Black Metal Mine's mere existence contributes to the quantitative conclusion that an inferred resource "nine times" the size of the Groom Mine's indicated resource exists.

Regarding the third factor NGL listed in the "Inferred Resources" section of the report—analogy to the Pioche Hills district—the report states that "there is a high probability that additional portions of the Pioche unit are mineralized" (ECF No. 130-1 at 10) and that the Property's "striking similarity to the Pioche Hills area suggests that there is a strong likelihood of additional mineralized occurrences at depth in the eastward-dipping carbonate sections of the Carrara Formation" (*Id.* at 17). The report also states: "It would be reasonable to conclude that if both the chemistry and lithology are similar, then the relative resource amounts present between both areas should also be correlative." (*Id.* at 18.) The report describes the relationship between the amount of mineralized deposits at the Pioche Hill district and the Property (correlative), but not the quantitative values that lead to the factor of nine on which NGL settles. Notably missing from the report is a description of the resource amount present at the Pioche Hills district (or an explanation of why that information is unavailable or would be unhelpful). Without knowing the amount

of resources present at Pioche Hills district, neither the Court nor a jury can determine the amount of resources that should be present at Groom Mine based on the "correlative" relationship between the "relative resource amounts" at the two areas.

Regarding the fourth factor NGL listed in the "Inferred Resources" section of the report—use of the EMINERS program—the report states that "the results indicat[e] that there is the likelihood that between two and three additional deposits of equal or greater size could exist in the Groom Mine area." (ECF No. 130-1 at 23.) This is the kind of quantitative information that could support NGL's conclusion that an inferred resource nine times the size of the Groom Mine's indicated resource exists. But it is insufficient. There is no explanation of how the existence of these two or three additional deposits leads to the factor of nine upon which NGL settles. Even assuming that NGL multiplied the indicated resource by two (or three), then multiplied that product by four (to account for modern mining efficiency), the result is eight (or twelve)—not nine.

Regarding the fifth factor NGL listed in the "Inferred Resources" section of the report—the use of certain averages in calculating inferred resources—the report states that "the indicated resource average Lead and Silver grades were used in the inferred resource." (*Id.* at 25.) The report does not state how those average grades were used or how they contributed to NGL's quantitative conclusion.

NGL's explanation in the report's executive summary—though entirely quantitative—is similarly unavailing: "When these findings are all considered—that is, doubling the originally mined resource at and below 200 feet, increasing the depth of extraction by a factor of six or seven, and then increasing the efficiency of mining by a factor of four with modern methods—the original approximately one millions tons of ore considered present in the historical literature increases substantially. This report estimates an inferred resource for the Groom Mine of nine million tons of mineralized material." (*Id.* at 4.) This summary does not describe how the multiplication factors identified (two, six or seven, and four) combine to yield a multiplication factor of nine.

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The Court concludes that NGL's analytical leap from qualitative considerations to quantitative conclusions coupled with its failure to explain its methodology constitutes a significant inadequacy, but this inadequacy could be remedied in discovery through deposition testimony or a supplemental report. Given the procedural posture of this case (stayed pending resolution of threshold discovery issues), the Court declines to exclude the report at this time.

### 3. Eventual Economic Extraction

The United States argues that NGL's resource estimate is unreliable and should be excluded because it does not address the reasonable prospects for eventual economic extraction. (ECF No. 130 at 13.) "Reasonable prospects for eventual economic extraction" inheres in the definition of "mineral resources." (ECF No. 130-2 at 4 (defining a mineral resource as "a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction").)

There is insufficient evidence to conclude that NGL failed to gauge reasonable prospects for eventual economic extraction at the appropriate level of detail. The United States cites no support for its argument that NGL must consider such granular details as the revenue the mine operator would receive for each ton of mined material. (See ECF No. 130 at 14.) Moreover, the definition in the SME guide indicates that a mineral resource is "a realistic estimate of mineralization which, under assumed and justifiable technical and economic conditions, might become economically extractable." (ECF No. 130-5 at 20 (emphasis added).) The United States has not shown that the factors it contends NGL should have considered are qualitatively different from the "technical and economic conditions" that appropriately may be assumed under the SME industry standards.

### 4. EMINERS Program

The United States next argues that NGL's report should be excluded as unreliable because it improperly uses and relies upon the EMINERS program. (ECF No. 130 at 15.)

The EMINERS program is "developed to allow geologists to 'estimate the number of

undiscovered deposits at different levels of probability." (ECF No. 146 at 11.) The United States contends that NGL improperly used EMINERS in two ways. First, the United States argues that the program could not have "predicted" undiscovered deposits because NGL chose the number of deposits to input. (ECF No. 130 at 15.) Second, the United States asserts that the program is not made to evaluate tracts of land as small as the Property. (*Id.*)

The United States' first contention does not tarnish the report's reliability. EMINERS requires the operator to input hypothesized numbers of deposits at various confidence levels, then the program determines, *inter alia*, the mean number of undiscovered deposits estimated to be present in the assessment tract. (ECF No. 146 at 20-21; ECF No. 130-3 at 15.) Here, NGL hypothesized the number of deposits that exist at various confidence levels based on research and experience and entered those values into EMINERS. (*See* ECF No. 146-8 at 3.) EMINERS generated a probabilistic result that NGL interpreted as a likelihood that additional undiscovered deposits exist. (*Id.*) This methodology appears to be logical and not inherently unreliable. In addition, the Government provides no evidence to counter NGL's assertions in its affidavit that this methodology is reliable and generally accepted (*Id.* at 2).

The United States' second contention is that EMINERS results cannot be reliable for a tract of land as small as the Property (which is roughly 1.6 square kilometers). (ECF No. 130 at 15; ECF No. 175 at 10.) The United States argues that "[t]he scale of the geologic map data used to delineate the permissive tracts affects the estimates" and that "[p]ermissive tract sizes range from about 10 square kilometers to hundreds of thousands of square kilometers" based on the affidavit of Jane Hammarstrom, a geologist for the U.S. Geological Survey who is designated as a point of contact for individuals with questions about the EMINERS program. (ECF No. 175 at 10 (quoting ECF No. 130-4 at 4).) Hammarstrom's affidavit does not expressly contemplate the reliability of the EMINERS program for tract sizes smaller than ten square kilometers. (See ECF No. 130-4 at 4.)

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Landowners respond that "tract size" refers to volume, not area. (See ECF No. 146 at 22; see also ECF No. 146-8 at 10 ("The geologic area considered in EMINERS is three dimensional considering the depth of the potential mineralization not just the surface acreage.").) Thus, Landowners argue, the "tract size" of the Property is significantly larger than 1.6 square kilometers. (ECF No. 146 at 22.) Landowners' response to the United States' argument is not wholly satisfactory. Landowners do not address the maximum depth that could be considered in calculating the volume of a tract, nor do they explain why Hammarstrom defined permissive tract size in terms of surface area (square kilometers) rather than in terms of volume (e.g., cubic kilometers) if volume is the appropriate measure.

Although the United States has identified important questions about NGL's use of the EMINERS program, the United States has not shown that the NGL report is necessarily unreliable in light of Landowners' explanations (incomplete though they may be at this stage of litigation). The Court finds that the technical inconsistencies between the parties' understandings of EMINERS will be best resolved through additional discovery rather than exclusion of NGL's report given the procedural posture of the case.

### VII. PLAINTIFF'S MOTION TO EXCLUDE THE OPINIONS OF LANDOWNERS' EXPERT TERRENCE CLAURETIE (ECF NO. 135)

Landowners have sought to introduce three expert opinions by Terrence Clauretie. The first report (Clauretie I) estimates the "amount of compensation necessary to put the Sheahan Family back in as good a position pecuniarily as if their property had not been taken." (ECF No. 135-1 at 3.) The second report (Clauretie II) assesses the financial feasibility of a "hypothetical tenant's hypothetical business operation on the property as of September 10, 2015." (ECF No. 135 at 3.) The third report (Clauretie III) was excluded in a prior order.<sup>11</sup> (ECF No. 241 at 11.)

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<sup>&</sup>lt;sup>11</sup>Clauretie III presented an opinion of value based on the "calculation of the burden the United States will be relieved of by taking the landowners' property." (ECF No. 135 at 3 (quoting ECF No. 135-1 at 18).)

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The United States argues that Clauretie I and II must be excluded because Clauretie is not qualified to appraise property and because Clauretie merely provided conclusory statements resulting in an unsupported valuation. (ECF No. 135 at 2.)

### 1. Clauretie I

Clauretie I concludes that between about \$81 million and \$116 million is the amount necessary to put the Sheahan Family back in as good a position pecuniarily as if their property had not been taken. (ECF No. 135-1 at 11.) The United States argues that there are two fundamental problems with Clauretie I: (1) Clauretie is not an appraiser and (2) Clauretie did not perform a valid highest and best use analysis in his report. (ECF No. 135 at 9.)

The United States first argues that Clauretie cannot provide an assessment of the Property's value because he is not a licensed appraiser. In fact, the United States points out, Nevada law makes it a misdemeanor for a person to act as an appraiser without appropriate licensing. (ECF No. 135 at 9-10 (citing NRS § 645C.260(1)(A).) Landowners assert that the Nevada law does not apply in eminent domain proceedings. (ECF No. 149) at 10 (citing NRS § 645C.150(6).) The United States counters that this statutory exception applies only to state eminent domain proceedings, not federal eminent domain proceedings. (ECF No. 174 at 5-6.) Ultimately, the question of whether Clauretie has committed a misdemeanor by offering testimony in this case is beside the point. The United States makes this argument to show that Clauretie is not qualified to value land (see id. at 2, 5-6), but the Court finds that Landowners have made a sufficient showing that Clauretie is qualified to appraise the value of land despite the lack of a license. Landowners assert that Clauretie spent more than thirty years as a professor of economics wherein his research, writing, and teaching focused significantly on real estate and the economics of real estate. (ECF No. 149 at 4.) In addition, Clauretie has taught seminars for appraisers. (*Id.*)

The United States next argues that Clauretie did not perform a valid highest and best use analysis in his report by failing to explain his methodology. (ECF No. 135 at 9-

10.) Highest and best use analysis is a term of art in condemnation actions, meaning the "highest and most profitable use for which the property is adaptable and needed or likely to be needed in the reasonably near future." *Olson v. United States*, 292 U.S. 246, 255 (1934). "The highest and best use analysis is an integral part of the appraisal process." *Nat'l Parks & Conservation Ass'n v. Bureau of Land Mgmt.*, 606 F.3d 1058, 1066 (9th Cir. 2009). The highest and best use is to be considered "not necessarily as the measure of value, but to the full extent that the prospect of demand for such use affects the market value while the property is privately held." *Olson*, 292 U.S. at 255.

Clauretie I contains an analysis of highest and best use:

Based upon the information I have reviewed in this case and my expertise, it is my opinion that the highest and best use of the Sheahan Family property is for a recreational tourist use, with the possibility of low intensity mining. I have determined that this use is legally permissible based upon the zone change and special use permit applications, staff recommendation and letter of approval from Lincoln County. I have determined that this use is physically possible based upon my personal inspection of the property and my review of the site layout showing potential development on the Sheahan Family property. I have determined that this use is financially feasible based on my companion report that addresses the financial feasibility of this use. It is also my opinion that this is the use that will be maximally productive.

(ECF No. 135-1 at 7-8.) Though spare, the analysis is complete. The report identifies conclusions and the basis for those conclusions. Although Clauretie's opinion "that this is the use that will be maximally productive" appears somewhat bald, the context of the paragraph indicates that this conclusion is based "upon the information [Clauretie] reviewed in this case and [his] expertise." (*Id.* at 7.) The information Clauretie reviewed includes the Steinagel report discussing the use of the Property as a tourist destination. (*Id.* at 3 (citing the Steinagel report among the materials on which Clauretie relied).)

The United States additionally argues that Clauretie has failed to identify or explain his methodology for valuing the Property. (ECF No. 135 at 10.) This does not appear to be correct. Clauretie expressly described his methodology in his report. (ECF No. 135-1 at 8.) The United States contends that Clauretie never explains why his methodology is the best methodology for valuing the Property (ECF No. 135 at 10), but that also does not seem to be correct. Clauretie explains that his methodology is especially appropriate for

valuing the Property because the Property is so unique that it lacks real world comparators. (ECF No. 149 at 8.) In addition, Clauretie explains that his methodology is reliable because it is a "generally accepted method to arrive at a real property value." (*Id.* (quoting ECF No. 149-3 at 6))

### 2. Clauretie II

Clauretie II concludes that it would be financially feasible for the Property to be transformed into a tourist destination. (ECF No. 135 at 3.) The United States argues that Clauretie II improperly considers the potential future use of the property by assuming that an actual tenant was operating an actual business on the Groom Property as of the date of taking. (*Id.*) "[A] potential future use of condemned property should be considered not as the present measure of value but only to the extent that the prospect of demand for such use would have affected the price a willing buyer would have offered for the property just prior to the taking." *United States v. Benning*, 330 F.2d 527, 532 (9th Cir. 1964). The United States' argument is unavailing. Clauretie II does not find the "present measure of value" based on the hypothetical tourist business operation. Instead, Clauretie II concludes that the use of the Property as a tourist destination is financially feasible. It was appropriate for Clauretie to consider the potential income of a hypothetical business to determine financial feasibility.

The United States next argues that Clauretie's opinions about whether the property is "special use property" should be excluded because they are unsupported and amount to legal conclusions. Clauretie's opinion is sufficiently supported by his assertion of the following facts: the Property is the only privately owned property in the Groom Lake Valley, and it is the only property in the world with an unobstructed view of Area 51. (ECF No. 135 at 11-12.)

Regarding the potential for Clauretie's opinion to amount to a legal conclusion, "an expert witness cannot give an opinion as to her legal conclusion, i.e., an opinion on an ultimate issue of law." *Hangarter v. Provident Life & Acc. Ins. Co.*, 373 F.3d 998, 1016 (9th Cir. 2004) (quoting *Elsayed Mukhtar v. California State Univ., Hayward*, 299 F.3d

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1053, 1066 n.10 (9th Cir. 2002), amended sub nom. Mukhtar v. California State Univ., Hayward, 319 F.3d 1073 (9th Cir. 2003), overruled on other grounds by Estate of Barabin v. AstenJohnson, Inc., 740 F.3d 457 (9th Cir. 2014)). Sometimes properties are so unique that fair market value is an inappropriate indicator of value. California v. United States, 395 F.2d 261, 265 (9th Cir. 1968) ("In many cases [just compensation] can readily be served by the ascertainment of fair market value—what a willing buyer would pay in cash to a willing seller. But this is not an absolute standard nor an exclusive method of valuation." (quoting *United States v. Miller*, 317 U.S. 369, 374 (1943))). Whether a property is sufficiently unique that a different indicator of value is required is not obviously a factual or legal question. On the one hand, whether and to what degree a property is unique is a factual question. Empirical research (as opposed to legal research) would reveal whether and to what degree a given property is unlike any other property. On the other hand, whether a property is unique enough that fair market value is an inappropriate or inaccurate indicator of value could be considered a legal conclusion. Legal research (as opposed to empirical research) could uncover analogous situations in which courts determined just compensation by a method other than fair market value. But empirical research could also show that fair market value is an inappropriate valuation. For instance, empirical research could show that a house designed by a particular architect has a different value to enthusiasts for that architect and her work than to the general population.

In light of this ambiguity, the Court finds that Clauretie may testify about the unique nature of the property (clearly a factual question) and to what degree measures of the Property's value other than fair market value are accurate. Clauretie may not, however, opine as to the legal conclusion that the Property is part of a legally recognized category of properties that are so unique that fair market value is an inaccurate measure of value.

### VIII. CONCLUSION

The Court notes that the parties made several arguments and cited to several cases not discussed above. The Court has reviewed these arguments and cases and determines

that they do not warrant discussion as they do not affect the outcome of the motions addressed in this Order.

It is therefore ordered that the United States' motions to exclude the mineral resource estimate opinion of NGL (ECF No. 130), survey data (ECF No. 133), the expert opinion of Cameron Steinagel (ECF No. 134), and the expert opinion of Terrence Clauretie (ECF No. 135) are denied. Denial of the United States' motion to exclude NGL's opinion is without prejudice should Landowners fail to address the deficiencies of NGL's opinion as discussed in this Order during discovery.

DATED THIS 24<sup>th</sup> day of October 2017.

MIRANDA M. DU UNITED STATES DISTRICT JUDGE